

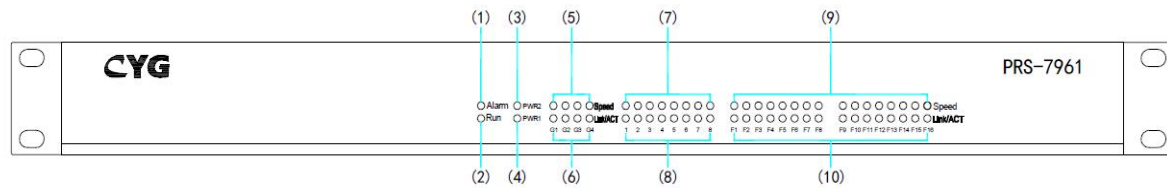


# PRS-7961

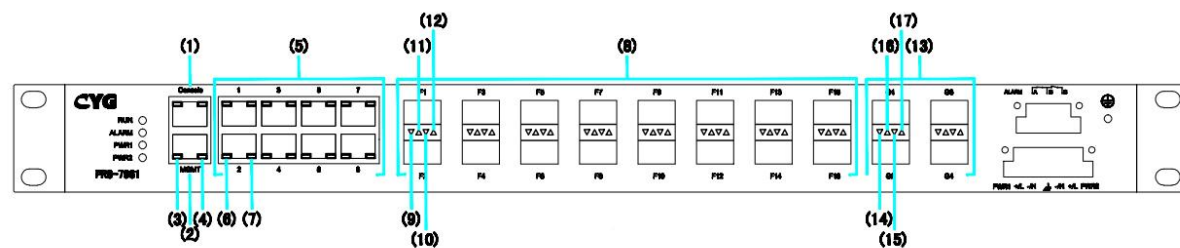


## General Application

PRS-7961 Layer 2 Industrial Ethernet Switch, designed for Communications Networking Devices Installed in Electric Power Substations and harsh industrial environment. Widely used in smart grid, new energy, industrial control, transportation, water conservancy and other fields.



❖ Front Panel



❖ Rear Panel

## Feature

Item	Parameter
Performance	reliable transmission of information in power system, Isolated redundant power inputs, Supports RSTP and SR-Ring, SNTP
Hardware	19 inch standard rack, -40° to 85° C operating temperature range, IP40, grounding screw
Interface	10/100Base-T(X) Ethernet interface, 100Base-FX SFP interface, 1000Base-X, 10/100/1000Base-T(X)SFP Interface, front panel console interface
Time Synchronization	SNTP
Standards	IEC 61850-3 and IEEE 1613 (power substations) compliant, IEC 61850-90-4 switch modeling for power SCADA, SNMPv1/v2c/v3
Configuration	Simply configuration maintenance, support WEB, Console, Telnet.

## Functions

Item	Description
Ethernet Switching	Adopts standard RJ45 connector, with self-adaption function, and support MDI/MDI-X self-identification function of cable, support hot-swappable
Flow Management	Forwarding rate limit for broadcast packets can be set to suppress storm. Supports IEEE 802.1p-based packet priority control. Port mirror can monitor specified port. Packet forwarding rate limit for each port can be set
VLAN	Supports port-based VLAN. Supports IEEE 802.1Q-based VLAN. Supports VLAN TRUNK. Supports inserting, modifying or deleting the VLAN tag of the packet.
Redundancy Protocol	Supports STP(802.1D) and RSTP(802.1w) Supports CYG Fast Ring Protection Protocol SR_RING Quickly switch to the backup link when other link is interrupted
Synchronization	Supports SNTP Clock Synchronization.
Management	Supports Console, Telnet, and Web management methods. Supports SNMPv1/v2c/v3

## Specifications

### Standard and Protocol

Standard	IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1s, 802.1x
Protocol	SR-Ring, VLAN, STP/RSTP, IGMP snooping, GMRP, SSH, HTTP, HTTPS, SNMPv1/v2c/v3, RMON, QoS, Port Aggregation, Port Mirror, 802.1X, SNTP Client/Server, RTC, SSL, ACL, FTP

### Switch features

Priority queues	4
VLAN entries	512
VLAN ID	1~4094
Multicast entries	512
MAC addresses	8K
Packet buffer and control memory	4Mbit
Packet forwarding rate	9.5Mpps
Latency	<5μs

### Interface

1000M optical interfaces	1000Base-X SFP
100M optical interfaces	100Base-FX SFP
Electrical interfaces	10/100Base-T(X) self-adaptive RJ45 connector
Console	RJ45
Management port	10/100Base-T(X) self-adaptive RJ45 connector
Alarm terminal	3-core 5.08mm-spacing pluggable terminal block, 250VAC/220VDC Max, 2A Max, 60W Max

## Specifications

### Indicator lights

Indicator lights of front panel	Running indicator light :Run
	Alarm indicator light: Alarm
	Indicator light of power supply: PWR1, PWR2
	Interface indicator light: Link/ACT, Speed
Indicator lights of back panel	Interface link state indicator light (green light): Link/ACT
	Interface speed indicator light (yellow light): Speed

### Transmission distance

Twisted pair	100m(adopt Cable which satisfy CAT5 or CAT5e)
Multimode fiber	1310nm, 2km(100M)
	850nm, 550m(1000M)
Single mode fiber	1310nm, 40km/60km(100M)
	1550nm, 60km/80km(100M)
	1310nm, 10km/40km(1000M)
	1550nm, 60km/80km(1000M)

### Power

Input rated voltage range	220V AC/DC(85-264V AC/77-300V DC)
Connecting terminal	5-core 5.08mm-spacing pluggable terminal block
Rated power	<35W
Overload protection	Support
Wrong polarity protection	Support
Redundancy protection	Support

# Specifications

## Mechanical structure

Case	Cooling surface design of aluminum case, without fan
Ingress protection	IP40
Installation method	19-inch 1U rack mounting

## Environment

Working temperature	-40°C~+85°C
Storage temperature	-40°C~+85°C
Relative humidity	5~95%,without condensation

## International standard

EMI	FCC CFR47 Part 15, EN55022/CISPR22, Class A
EMS	IEC61000-4-2(Electrostatic discharge immunity test) ±8kV(contact), ±15kV(air)
	IEC61000-4-3(Radiated, radio-frequency electromagnetic field immunity test) 10V/m(80MHz~2GHz)
	IEC61000-4-4(Electrical fast transient/burst immunity test) Power Port:±4kV; Data Port:±2kV
	IEC61000-4-5(Surge immunity test) Power Port:±2kV/DM, ±4kV/CM; Data Port:±2kV
	IEC61000-4-6(Immunity to conducted disturbances, induced by radio-frequency fields) 3V(10kHz~150kHz); 10V(150kHz~80MHz)
	IEC61000-4-8(Power frequency magnetic field immunity test) 100A/m(cont.), 1000A/m(1s~3s)
	IEC61000-4-9(Impulse magnetic field immunity test) 1000A/m
	IEC61000-4-10(Damped oscillatory magnetic field immunity test) 100A/m
	IEC61000-4-12(Oscillatory waves immunity test) 2.5kV/CM, 1kV/DM
	IEC61000-4-16(Test for immunity to conducted, common mode disturbances in frequency range 0 Hz to 150 kHz) 30V(cont.), 300V(1s)
Mechanics	IEC60068-2-6(Vibration) IEC60068-2-27(Shock) IEC60068-2-32(Free fall)
Industry	IEC61000-6-2
Electricity	IEC61850-3, IEEE1613